Cont F1

54.(Amended) A process for the production of biologically active VEGF-B, said method comprising expressing a nucleic acid molecule which hybridizes under high stringency conditions to a reverse complement of a nucleic acid of SEQ ID NO:9 in a host and isolating said VEGF-B, wherein said high stringency conditions comprise 0.1-1X SSC/0.1% w/v SDS at 60°C for 1-3 hours.

REMARKS

In the Office Action dated December 20, 2001, claims 26-28, 30, 47 and 56-58 are allowed. Claims 50-55 have been rejected under 35 U.S.C. §112, first paragraph as allegedly lacking descriptive support. Claims 50-55 have also been rejected under 35 U.S.C. §112, first paragraph as allegedly lacking enabling support. Claims 46, 48 and 49 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting, as allegedly unpatentable over claims 47, 45 and 46, respectively, of copending application Serial No. 08/765,588.

This response addresses each of the Examiner's rejections. Accordingly, the present application is in condition for allowance. Favorable consideration of all pending claims is therefore respectfully requested.

Claims 50-55 have been rejected under 35 U.S.C. §112, first paragraph as allegedly lacking descriptive support. The Examiner alleges that the nucleic acid molecule which hybridizes under high stringency conditions to a nucleic acid of SEQ ID NOS: 3, 5, 7 and 9 would not encode a polypeptide.

In response, Applicants have amended the claims to further define the subject matter to which Applicants are entitled. Support for the amendment claims 50-54 is found

throughout the specification and particularly at page 6, line 27-page 7, line 4 and original claim 36, for example. No new matter has been added.

Claims 50-55 have also been rejected as allegedly lacking enabling support. The Examiner admits that the specification is enabling for "making biologically active VEGF-B by expressing a nucleic acid molecule of SEQ ID NOS: 3, 5, 7 or 9". The Examiner alleges that the specification does not "reasonably provide enablement for expressing a nucleic acid molecule which hybridizes under high stringency conditions to nucleic acid molecules of SEQ ID NOS: 3, 5, 7 or 9." The Examiner specifically alleges that according to the specification "it is not predictable which of those nucleic acid molecules which hybridize to the nucleic acid sequences of SEQ ID NOS: 3, 5, 7 or 9 will encode a biologically active VEGF-B."

Applicants respectfully submit that the pending claims, as amended, are fully enabled by the present specification, in compliance with the requirements of 35 U.S.C. §112, first paragraph. Specifically, Applicants submit that given the high stringency conditions described and claimed, only a very limited number of sequences would hybridize to a reverse complement of SEQ ID NOS: 3, 5, 7 or 9. Moreover, the identification of a biologically active VEGF-B is readily ascertainable by the skilled artisan given the explicit teachings of Example 2 which provides a road map for the identification of biologically active VEGF-B. Notably, such molecule characteristically contains conserved cysteine residues such as cysteine-47, cysteine-72, cysteine-78, cysteine-81, cysteine-82, cysteine-89, cysteine-122 and cysteine-124 (see page 16, lines 4-7). Such structural landmarks are apparently required for function which is readily determined by assaying the isolated VEGF-B according to the methods employed in Example 7 or 8, pages 29-31, for example.

Accordingly, given the structural landmarks of the VEGF-B protein and the explicit methods for determining the function of such molecule, Applicants submit that the present specification enables the production of biologically active VEGF-B in accordance with claims 50-55, without undue experimentation. Accordingly, the rejection of claims 50-55 under 35 U.S.C. §112, first paragraph is overcome and withdrawal thereof is respectfully requested.

Claims 46, 48 and 49 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly unpatentable over claims 47, 45 and 46, respectively, of copending application Serial No. 08/765,588. In response, Applicants provide a terminal disclaimer which serves to overcome the provisional rejection. Accordingly, the provisional rejection of claims 46, 48 and 49 under the judicially created doctrine of obviousness-type double patenting is overcome and withdrawal thereof is respectfully requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

Thus, the present application is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,

Peter I. Bernstein
Registration No. 43,497

Scully, Scott, Murphy & Presser
400 Garden City Plaza
Garden City, New York 11530
(516) 742-4343

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 50-54 have been amended as follows:

50.(Amended) A process for the production of biologically active VEGF-B, said method comprising expressing a nucleic acid molecule which hybridizes under high stringency conditions to a reverse complement of a nucleic acid of SEQ ID NOS: 3, 5, 7 and 9 in a host and isolating said VEGF-B, wherein said high stringency conditions comprise 0.1-1X SSC/0.1% w/v SDS at 60°C for 1-3 hours.

51.(Amended) A process for the production of biologically active VEGF-B, said method comprising expressing a nucleic acid molecule which hybridizes under high stringency conditions to a reverse complement of a nucleic acid of SEQ ID NO:3 in a host and isolating said VEGF-B, wherein said high stringency conditions comprise 0.1-1X SSC/0.1% w/v SDS at 60°C for 1-3 hours.

52.(Amended) A process for the production of biologically active VEGF-B, said method comprising expressing a nucleic acid molecule which hybridizes under high stringency conditions to a reverse complement of a nucleic acid of SEQ ID NO:5 in a host and isolating said VEGF-B, wherein said high stringency conditions comprise 0.1-1X SSC/0.1% w/v SDS at 60°C for 1-3 hours.

53.(Amended) A process for the production of biologically active VEGF-B, said method comprising expressing a nucleic acid molecule which hybridizes under high stringency

conditions to a reverse complement of a nucleic acid of SEQ ID NO:7 in a host and isolating said VEGF-B, wherein said high stringency conditions comprise 0.1-1X SSC/0.1% w/v SDS at 60°C for 1-3 hours.

54.(Amended) A process for the production of biologically active VEGF-B, said method comprising expressing a nucleic acid molecule which hybridizes under high stringency conditions to a reverse complement of a nucleic acid of SEQ ID NO:9 in a host and isolating said VEGF-B, wherein said high stringency conditions comprise 0.1-1X SSC/0.1% w/v SDS at 60°C for 1-3 hours.